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10/695,283

10/28/2003

Robert Richard Dykstra

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EXAMINER

GERIDO, DWAN A

ART UNIT

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1797

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--|---------------------------------------|--|
| Office Action Summary | Application No. 10/695,283 | Applicant(s) DYKSTRA ET AL. | |
| | Examiner Dwan A. Gerido, Ph.D. | Art Unit 1797 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rollat et al., (US 2003/0017125) in view of Moore et al., (US 5,866,110) in further view of Wang et al., (US 7,056,880).

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5. Regarding claim 1, Rollat et al., teach a non-encapsulated benefit agent delivery system comprising an aqueous dispersion of a water insoluble polymer (paragraph 0017), and a benefit agent (paragraph 0053) wherein the particle comprises at least one cationic monomer and one or more non-cationic monomers (paragraphs 0052, 0053). Rollat et al., also teach the polymer and benefit agent non-polymerically associated in a liquid matrix (paragraph 0048). The benefit agent taught by Rollat et al., is identical to that of the instant application, thus the Response Factor (RF), glass transition temperature, and the Kovats Index of the prior art is inherently within the ranges set forth in claim 1. Rollat et al., also teach the dispersion comprising thickening agents (paragraph 0053), but do not teach a viscosity ranging from 7000-10,000cps.

Moore et al., teach a gel composition wherein sodium sulfate is utilized to set the viscosity in the range of 5000-11,000cps (column 15 lines 26-29). The examiner notes that sodium sulfate is also utilized in the instant application with regards to the viscosity. Adjusting viscosity with to 5000-11,000cps is the preferred method as taught by Moore et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rollat et al., in view of Moore et al., to utilize sodium sulfate to gain the predictable result of thickening the delivery agent and adjusting the viscosity to between 5000-11,000cps as taught by Moore et al. Rollat et al., in view of Moore et al., do not teach a benefit agent delivery system comprising a glass transition temperature ranging from 50°C to 120°C.

Wang et al., teach a benefit agent delivery system wherein the glass transition temperature ranges from -120°C to 120°C and preferably from -80-60°C. Varying the glass transition temperature is being read as a result effective variable which would have been obvious to one of ordinary skill in the art. Altering the glass transition temperature of a polymer has the

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well known and expected result of changing the state of the polymer, wherein a higher glass transition temperature results in a stiffer polymer particle and a more gel-like aqueous dispersion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rollat et al., in view of Moore et al., in further view of Wang et al., to meet the glass transition temperature requirements of the claimed polymer particle as optimization of a result effective variable requires only routine skill in the art (MPEP 2144.05 II A).

6. Claims 1 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hood et al., (US 2002/0058015) in view of Rollat et al., (US 2003/0017125) in view of Moore et al., (US 5,866,110) and further in view of Wang et al., (US 7,056,880).

7. Regarding claims 1 and 6-9, Hood et al., teach a non-encapsulated benefit agent delivery system comprising an aqueous dispersion of a water insoluble polymer particle and a benefit agent wherein the polymer particle comprises at least one cationic monomer and one or more non-cationic monomers (Abstract, Paragraphs 0020, 0027). Hood et al., also teach the polymer and benefit agent non-polymerically associated in a liquid matrix (paragraph 0027). The response factor of the benefit agent is inherently at least about 1.5 as the benefit agent of the instant application and the prior art are identical. Additionally, the polymer particle inherently has a first affinity for a low kovats index perfume raw material having a kovats index from about 1000 to about 1400 and a second affinity for a high kovats index perfume raw material having a kovats index of greater than about 1700, the first affinity being at least about 2 times greater than the second affinity as measured by Affinity Test Protocol III, as the polymer is made as taught by applicants in the instantly claimed invention. The LKI perfume raw materials collectively provide a first Average Response Factor (ARF_{LKI}) and the HKI perfume raw materials

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collectively provide a second Average Response Factor (ARF_{HKI}) with the perfume polymeric particle having a ratio of ARF_{LKI}/ARF_{HKI} of at least about 1.2 (examples 13 and 17). Hood et al., also teach a method for making a granular or liquid composition containing a non-encapsulated benefit agent delivery system comprising at least one cationic monomer and one or more non-cationic monomers to the matrix and adding a benefit agent selected from the group consisting of flavor ingredients and perfume raw materials and mixtures thereof to the matrix; wherein the polymer particle and benefit agent are added as separate, discrete components from different sources to form the benefit delivery system and are not polymerically associated in said system (examples 13 and 17). Hood et al., do not teach the dispersion comprising a colloidal stabilizer.

Rollat et al., teach utilizing a colloidal silica in order to sterically stabilize polymer particles in a dispersion (paragraph 0048). Rollat et al., teach the colloidal stabilizer limits the particles coalescence and yields uniform particles, thereby preventing aggregation of the particles and enabling a more homogeneous dispersion (paragraph 0048). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the benefit agent delivery system of Hood et al., by adding a colloidal stabilizer as taught by Rollat et al., in order to sterically stabilize the particles and prevent aggregation in order to ensure a more homogeneous dispersion. Rollat et al., also teach the benefit agent delivery system comprising thickening agents, but does not teach a viscosity ranging from 5000-11,000cps.

Moore et al., teach a benefit agent delivery system comprising a thickening agent that adjusts the viscosity to a range between 5000-11,000cps (column 3 tables 1 and 2). Utilizing a thickening agent to adjust the viscosity between 5000-11,000cps is the preferred embodiment of the benefit agent delivery system as taught by Moore et al. Thus, it would have been obvious to

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one of ordinary skill in the art at the time the invention was made to modify Hood et al., in view of Rollat et al., in further view of Moore et al., to utilize a thickening agent in a benefit agent delivery system in order to gain the predictable result of thickening the delivery agent and adjusting the viscosity to between 5000-11,000cps.

Wang et al., teach a benefit agent delivery system wherein the glass transition temperature ranges from -120°C to 120°C and preferably from -80-60°C. Varying the glass transition temperature is being read as a result effective variable which would have been obvious to one of ordinary skill in the art. Altering the glass transition temperature of a polymer has the well known and expected result of changing the state of the polymer, wherein a higher glass transition temperature results in a stiffer polymer particle and a more gel-like aqueous dispersion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hood et al., in view of Rollat et al., in view of Moore et al., in further view of Wang et al., to meet the glass transition temperature requirements of the claimed polymer particle as optimization of a result effective variable requires only routine skill in the art (MPEP 2144.05 II A).

Response to Arguments

8. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.
9. Applicant has amended claim 1 to recite a glass transition temperature range of 50-120°C and argues that reference to Trandai et al., applied in the previous Office Action does not teach the limitations set forth in the instant claims thus cannot be utilized to justify optimization as stated in the prior Office Action. Reference to Trandai et al., has been replaced with reference to

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Wang et al., which teach a benefit agent delivery system comprising a polymer particle that covers a wide range of glass transition temperatures (-120 to 120°C and preferably -80 to 60°C). Given the wide range of temperatures taught by Wang et al., it is the examiners position that one of ordinary skill in the art would have been motivated to determine the optimal glass transition temperature range as recited in the instant claims by routine experimentation. The examiner has upheld the rejections from the previous Office Action pertaining to Rollat et al., Moore et al., and Hood et al., as the processes utilized to make the benefit agent delivery system is deemed to be similar to that of the instant application, thereby resulting in polymer particles with similar properties as stated above.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwan A. Gerido, Ph.D. whose telephone number is (571)270-3714. The examiner can normally be reached on Monday - Friday, 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYLE A ALEXANDER/
Primary Examiner, Art Unit 1797

DAG